

**CLAIMS**

1. A method for degreasing an aluminum hard foil, the method comprising the step of:

subjecting a foil-rolled aluminum foil to a low-temperature treatment for holding the aluminum foil at 80 to 160 °C for 1 hour or more to degrease the aluminum foil.

2. The method for degreasing an aluminum hard foil as recited in claim 1, wherein the low-temperature treatment is performed by subjecting the aluminum foil to batch processing with the aluminum foil coiled.

3. The method for degreasing an aluminum hard foil as recited in claim 1 or 2, wherein the aluminum foil is 4 to 50  $\mu\text{m}$  in thickness.

4. An aluminum hard foil obtained by subjecting a foil-rolled aluminum foil to a low-temperature treatment for holding the aluminum foil at 80 to 160 °C for 1 hour or more to degrease the aluminum foil.

5. The aluminum hard foil as recited in claim 4, wherein a foil surface of the aluminum hard foil has a contact angle of less than 45 °, wherein the contact angle is measured with wettability test liquid having surface tension of 0.41 N/m at 25 °C.

6. The aluminum hard foil as recited in claim 4, wherein the aluminum foil is 4 to 50  $\mu\text{m}$  in thickness.

7. The aluminum hard foil as recited in claim 5, wherein the aluminum foil is 4 to 50  $\mu\text{m}$  in thickness.

8. The aluminum hard foil as recited in any one of claims 4 to 7, wherein the aluminum hard foil is a battery electrode substrate.

9. An aluminum hard foil electrode member, comprising:  
an electrode substrate consisting of an aluminum hard foil obtained by subjecting a foil-rolled aluminum foil to a low-temperature heat treatment for holding the aluminum foil at 80 to 160 °C for 1 hour or more to degrease the aluminum foil; and  
electrode material containing electrode active material applied on the electrode substrate.

10. The aluminum hard foil electrode member as recited in claim 9, wherein the electrode material containing electrode active material is positive electrode material for lithium ion secondary batteries.

11. A lithium ion secondary battery, comprising an electrode substrate, wherein the electrode substrate consists of an aluminum hard foil obtained by subjecting a foil-rolled aluminum foil to

a low-temperature heat treatment for holding the aluminum foil at 80 to 160 °C for 1 hour or more to degrease the aluminum foil.

12. A lithium ion secondary battery, comprising an aluminum hard foil electrode material as an electrode member,

wherein the aluminum hard foil electrode member includes an electrode substrate consisting of an aluminum hard foil obtained by subjecting a foil-rolled aluminum foil to a low-temperature heat treatment for holding the aluminum foil at 80 to 160 °C for 1 hour or more to degrease the aluminum foil, and electrode material containing electrode active material applied on the electrode substrate.

13. The lithium ion secondary battery as recited in claim 12, wherein the electrode material containing electrode active material is positive electrode material for lithium ion secondary batteries.